IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

THOMSON REUTERS ENTERPRISE)
CENTRE GMBH and WEST PUBLISHING)
CORPORATION,)
)
              Plaintiffs/Counterdefendants,)
)
      v.)
)
ROSS INTELLIGENCE INC.,)
)
           Defendant/Counterclaimant.)

C.A. No. 20-613-SB

JURY TRIAL DEMANDED

PUBLIC VERSION

DECLARATION OF JOSEPH MARKS IN SUPPORT OF DEFENDANT/COUNTERCLAIMANT ROSS INTELLIGENCE INC.'S MOTION FOR SUMMARY JUDGMENT ON ITS AFFIRMATIVE DEFENSE OF FAIR USE AND ON PLAINTIFFS' CLAIMS FOR COPYRIGHT INFRINGEMENT

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FOR THE DISTRICT OF DELAWARE**

THOMSON REUTERS ENTERPRISE CENTRE GMBH and WEST PUBLISHING CORPORATION,	))))	
	)	C.A. No. 20-613-SB
Plaintiffs/Counterdefendants,	)	
	)	
v.	)	**PUBLIC VERSION**
	)	
ROSS INTELLIGENCE INC.,	)	
	)	
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**DECLARATION OF JOSEPH MARKS IN SUPPORT OF
DEFENDANT/COUNTERCLAIMANT ROSS INTELLIGENCE INC.'S MOTION FOR
SUMMARY JUDGMENT ON ITS AFFIRMATIVE DEFENSE OF FAIR USE AND ON
PLAINTIFFS' CLAIMS FOR COPYRIGHT INFRINGEMENT**

I, Joseph Marks, declare as follows:

1.   I submit this Declaration in Support of Defendant/Counterclaimant ROSS Intelligence Inc.'s ("ROSS") Motion for Summary Judgment on Its Affirmative Defense of Fair Use and its Motion for Summary Judgment on Copyright Infringement.

2.   I have been retained by Defendant/Counterclaimant ROSS Intelligence, Inc. to give my expert opinion on the legal research platform developed by ROSS. I have personal knowledge of the facts set forth below and, if called to testify, I could and would testify competently to the below.

3.   I received my Ph.D. in Computer Science from Harvard University in 1991. I have over 5,000 citations on Google Scholar, where I also have an h-index score of 35 and an i10-index score of 57. From 2016-2020, I was the Executive Director at the Carnegie Mellon University Center for Machine Learning and Health. I have been a lecturer at the Extension School and Division of Engineering and Applied Sciences at Harvard. I previously held a position at Disney as a Vice President & Research Fellow, where I conceived of and led their industry-leading

research and development group, with an annual budget that exceeded $30 million. I was recently a board member and AI consultant at Augmedix, Inc.

4.   A true and correct copy of my resume as of July 2024, which includes the above-listed and related information, is attached herein as **Exhibit A**.

5.   Recently, I built a retrieval and ranking tool for the American Medical Association that uses natural language processing and machine-learning technology to recommend medical journal citations for medical professionals based on Electronic Health Record (EHR) notes prepared by doctors and their staff. While my tool has been built for the medical profession and the tools at issue in this case are built for the legal profession, the computer science and AI principles are relevant to both domains.

6.   I was retained in this case after Dr. L. Karl Branting unexpectedly passed away. I have reviewed Dr. Branting's Opening Expert Report, which is attached here as **Exhibit B**, his Rebuttal Expert Report, which is attached here as **Exhibit C**, and his Reply Expert Report and October 18, 2022, correction, which is attached here as **Exhibit D**. I have also reviewed facts and data that Dr. Branting relied on to make these conclusions, including source code for the ROSS tool and the materials that Dr. Branting referenced in his reports.

7.   Based on my review of Dr. Branting's work, I have accepted all of the opinions in all of Dr. Branting's report as though they are my own.

I.   The ROSS Platform

8.   ROSS developed a legal search platform ("ROSS platform") that █████████

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██████. *See* Exhibit B, ¶ 14, Ex. 8 (ROSS-003419433). This is a machine-based analysis of judicial text.

9.   The ROSS platform operates ████████████████████████████████

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██████. *See* Exhibit B, ¶ 13, Ex. 9 (ROSS-003427517). The ranking component of the ROSS

platform ██

██████████████████████████. *See* Exhibit B, ¶ 13, Ex. 10 (ROSS-003419595).

10.   ROSS training data for its machine learning algorithms consists of legal questions,

answers to these legal questions in the form of judicial case excerpts, and relevance ratings—great,

good, topical or irrelevant—that express the quality of the answer to each legal question. *See*

Exhibit B, ¶ 15 (Ex. 1 (ROSS-000000001)). ROSS wanted a large and diverse body of these legal

questions and answers in the form of verbatim quotes from judicial opinions to complete its

training. Exhibit C, ¶ 14. This was done because ROSS wanted a representative range of the

language and expression that users of ROSS's technology would expect to pose to the system. *Id.*

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██████████████████████████████████. *Id.*

11.   The ranking component of ROSS's legal search engine was trained on legal

questions and judicial case-excerpt answers to these questions, and ratings of the relevance of the

answers to the questions all contained in memorandum. *See* Exhibit B, ¶ 16, Ex. 12 (ROSS-

000236085), Ex. 13 (Morae Deposition Transcript, at 220:8-225:11).

12.   ██

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█████████████. *See* Exhibit B, ¶¶ 17-19, 30-36. ████████████████████████

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13.   Based on my review of the ROSS source code, ███████████████████████

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See Exhibit B, ¶ 20, Ex. 7. There is no evidence in ROSS's source code of any pre-existing or

external system for organizing or indexing cases or portions of cases. *Id.* █████████████

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14.   ██

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████████████████████████████████. *See* Exhibit B, ¶ 45, Ex. 7.

15.   ██. *See*

Exhibit B, ¶ 46, Ex. 7. ███████████████████████████████

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███████████████████████████████████████. *See* Exhibit B, ¶ 46, Ex. 19 (Christopher J.C. Burges,

From RankNet to LambdaRank to LambdaMART: An overview, MSR-T-2010-82 (June 2010),

https://www.microsoft.com/en-us/research/wpcontent/uploads/2016/02/MSR-TR-2010-82.pdf).
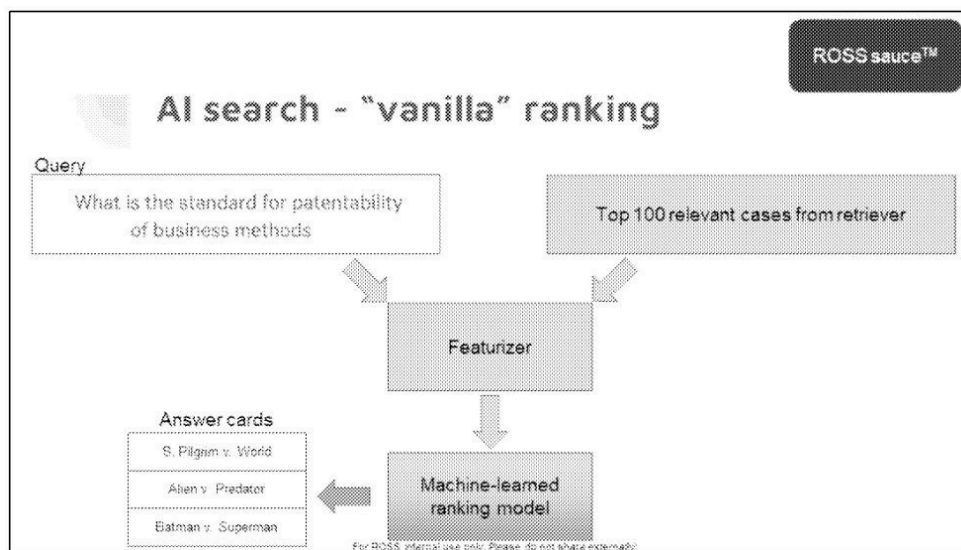
See Exhibit B, ¶ 43, Ex. 18 (ROSS-010106989).

16.   ███

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██████████████████████████████████████. *See* Exhibit B, ¶ 47, Ex. 7. ███

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See id.

    17. ████████████████████████████████████ ." *See* Exhibit B, ¶

48, Ex. 7. ██

████████████████ . *See* Exhibit B, ¶¶ 17-19, 37-38. █████████████

███████████████ *See* Exhibit B, ¶ 48. ████████████████

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    18. ████████████████████████████████████

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██████████████████ *See id.*; https://spacy.io; https://www.mltk.org/.

    19.   As an example, ███████████████████████████

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24.   ██████████████████████████████████████

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████████████████████████████████████ . *Id.*

II.   **Plaintiffs' Development of Westlaw Search Capabilities**

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██ *See* Exhibit B, ¶ 60, Exs. 23-

24.

26.   ROSS used different natural language search methodologies, features and training

methodologies than Plaintiffs. Contract lawyers working for an independent contractor of ROSS

generated question-answer pairs by generating questions and finding legal answers. *See* Exhibit B,

¶ 62, Ex. 12. ███████████████████████████████

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████████████████████████████████████. *Id.*

27.   ██

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██████████████████████████████████. *See* Exhibit B, ¶¶ 59-

65.

28.   The features and technical methodologies used by ROSS in developing natural

language search capabilities also differed from the methodologies used by Plaintiffs in three

important ways. ████████████████████████████████

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████████████████████████████. *See* Exhibit B, ¶ 64, Ex. 24.

III.   ROSS Turned Words Into Vector Representation-Numbers Reflecting Relationships

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34.   Neither the memos used in the ROSS tool creation process nor the ROSS source code that I reviewed used for training the ROSS ranking model used any of the following elements as data for training the ranking model: West key numbers, topics, West headnotes themselves, case synopses, components or parts of the selection, organization, and arrangement of the West key number system, hyperlinks or relationships between headnotes and locations in judicial opinions, hyperlinks or relationships between West key numbers and headnotes, or the entirety of particular judicial opinions including any purported editorial enhancements contained in such opinions. Further, based on the same review, none of this information was used in pre-processing of data relating to search queries or in any other data processing or software component in ROSS's production platform or source code. Further, to the extent any system or organization was present in the memos, it was eliminated at several of the steps in this process, as described above. *See* Exhibit B.

35.   The only possible output from ROSS's tool was judicial passages. *See* Exhibit B, ¶¶ 40-43. These judicial passages came from ROSS's repository. *Id.*

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I declare under penalty of perjury under the laws of the United States that the foregoing is true and correct. Executed in __Pittsburgh, PA_____ on __1st___ of September, 2024.

Joseph Marks
_____
Joseph Marks